Claims

[c1] 1. An optical amplitude demodulator for demodulating signals received from a fibre optic link comprising:
a plurality of optical sensors for detecting optical output from the fibre optic link, each of the optical sensors having a different detection threshold, the plurality of optical sensors producing a plurality of digital outputs corresponding to the optical output level detected, and
a priority encoder for encoding the digital outputs into a multi-bit digital signal.

[c2] 2. An optical amplitude demodulator as claimed in claim 1 wherein:
each of the plurality of optical sensors has an associated optical filter, each of said filters having a different level of opaqueness, for filtering received optical output prior to detection by the optical sensor.

[c3] 3. An optical amplitude demodulator as claimed in claim 1 wherein:
each of the plurality of optical sensors has a different level of semiconductor diffusion, causing the optical output received by each of said plurality of optical sensors to differ according to the level of diffusion.

[c4] 4. An optical amplitude demodulator as claimed in claim 1 wherein:
the detection thresholds are programmable.

[c5] 5. An optical amplitude demodulator as claimed in claim 1 wherein:
said plurality of optical sensors comprises 2N individual optical sensors.

[c6] 6. An optical amplitude demodulator as claimed in claim 5, in which N=4.

[c7] 7. An optical amplitude demodulator as claimed in claim 1, in which each of said optical sensors is a PIN diode.

[c8] 8. An optical amplitude demodulator as claimed in claim 1, in which each of said optical sensors is a PIN transistor.